

## CLAIMS

What is claimed is:

1. A method for identifying a software configuration in an image delivery  
5 system having a storage device, the method comprising:  
processing a component list associated with a system to be built, the component list  
containing a essential portion and a non-essential portion,  
performing a key generating function on the essential portion of the component list to  
generate a key associated with the software configuration, and  
10 using the generated key to determine if the software configuration exists on the  
storage device.

2. The method of claim 1, further comprising the steps of:  
transferring an image associated with the software configuration to one or more target  
15 devices if the essential component list associated with each of the one or more  
target devices produces the generated key when the key generating function is  
performed on the associated each essential component list, and  
generating a new image associated with the software configuration if the essential  
component list associated with each of the one or more target devices fails to  
20 produce the generated key when the key generating function is performed on  
the associated each essential component list.

3. The method of claim 1, wherein the key generating function includes a  
128-bit hash algorithm.  
25

4. The method of claim 2, wherein the key generating function includes a  
128-bit hash algorithm.

5. The method of claim 1, wherein the essential component list includes

software-related components.

6. The method of claim 2, wherein the essential component list includes software-related components.

5

7. A method for identifying a software configuration in an image delivery system having a storage device, the method comprising:  
generating a bill of materials associated with a target computer system from an order entry portion of the image delivery system,  
10 dividing the bill of materials into an essential portion and a non-essential portion,  
sorting at least the essential portion of the bill of materials into alphanumeric order,  
performing a key generating function on the at least the essential portion of the bill of materials to generate a key associated with the software configuration, and  
using the generated key to determine if the software configuration exists on the  
15 storage device.

8. The method of claim 7, further comprising the steps of:  
transferring an image associated with the software configuration to one or more of the target computer system if the at least the essential portion of the bill of  
20 materials associated with each of the one or more of the target computer system produces the generated key when the key generating function is performed on the associated each at least essential portion of the bill of materials, and  
generating a new image associated with the software configuration if the at least the  
25 essential portion of the bill of materials associated with the each of the one or more target computer system fails to produce the generated key when the key generating function is performed on the associated each at least essential portion of the bill of materials.

9. The method of claim 7, wherein the key generating function includes a 128-bit hash algorithm.

10. The method of claim 8, wherein the key generating function includes a 128-bit hash algorithm.

11. The method of claim 7; wherein the essential portion of the bill of materials includes software-related components.

12. The method of claim 8, wherein the essential portion of the bill of materials includes software-related components.

13. The method of claim 7, wherein the at least essential portion of the bill of materials is sorted into ascending alphanumeric sequence.

14. The method of claim 8, wherein the at least essential portion of the bill of materials is sorted into ascending alphanumeric sequence.

15. A method for identifying a software configuration in an image delivery system having a storage device, the method comprising:  
generating a bill of materials associated with a target computer system from an order entry portion of the image delivery system,  
sorting the bill of materials into alphanumeric order,  
performing a key generating function on at least a portion of the bill of materials to generate a key associated with the software configuration, and  
using the generated key to determine if the software configuration exists on the storage device.

16. The method of claim 15, further comprising the steps of:

transferring an image associated with the software configuration to one or more of the target computer system if the at least a portion of the bill of materials associated with each of the one or more of the target computer systems produces the generated key when the key generating function is performed on the associated each at least a portion of the bill of materials, and  
5 generating a new image associated with the software configuration if the at least a portion of the bill of materials associated with the each of the one or more target computer system fails to produce the generated key when the key generating function is performed on the associated each at least a portion of  
10 the bill of materials.

17. The method of claim 15, wherein the key generating function includes a 128-bit hash algorithm.

15 18. The method of claim 16, wherein the key generating function includes a 128-bit hash algorithm.

19. The method of claim 15, wherein the essential component list includes software-related components.  
20

20. The method of claim 16, wherein the essential component list includes software-related components.

21. The method of claim 15, wherein the bill of materials is sorted into ascending alphanumeric sequence.  
25

22. The method of claim 16, wherein the bill of materials is sorted into ascending alphanumeric sequence.

23. A computerized system for identifying a software configuration for image delivery, the system comprising:

a processor,

5 a computer readable medium capable of being read by the processor, and  
a plurality of computer instructions on the computer readable medium, the plurality of computer instructions executable by the processor, the plurality of computer instructions for causing the processor to:

10 generate a bill of materials associated with a target computer system from an  
order entry portion of the image delivery system,  
sort the bill of materials into alphanumeric order,  
perform a key generating function on at least a portion of the bill of materials  
to generate a key associated with the software configuration, and  
using the generated key to determine if the software configuration exists on  
15 the storage device.

24. The computerized system of claim 23, wherein the instructions further cause the processor to:

20 transfer an image associated with the software configuration to one or more of  
the target computer system if the at least a portion of the bill of materials  
associated with each of the one or more of the target computer systems  
produces the generated key when the key generating function is performed  
on the associated each at least a portion of the bill of materials, and  
generate a new image associated with the software configuration if the at least  
25 a portion of the bill of materials associated with the each of the one or  
more target computer system fails to produce the generated key when the  
key generating function is performed on the associated each at least a  
portion of the bill of materials.

25. The computerized system of claim 23, wherein the key generating function includes a 128-bit hash algorithm.

26. The computerized system of claim 24, wherein the key generating  
5 function includes a 128-bit hash algorithm.

27. The computerized system of claim 23, wherein the essential component list includes software-related components.

10 28. The computerized system of claim 24, wherein the essential component list includes software-related components.

29. The computerized system of claim 23, wherein the bill of materials is sorted into ascending alphanumeric sequence.  
15

30. The computerized system of claim 24, wherein the bill of materials is sorted into ascending alphanumeric sequence.

31. A computerized system for identifying a software configuration for  
20 image delivery, the computerized system comprising:

a processor,  
a computer readable medium capable of being read by the processor, and  
a plurality of computer instructions on the computer readable medium, the plurality of computer instructions executable by the processor, the plurality of  
25 computer instructions for causing the processor to:  
generate a bill of materials associated with a target computer system from an order entry portion of the image delivery system,  
divide the bill of materials into an essential portion and a non-essential portion,

sort at least the essential portion of the bill of materials into alphanumeric order,

perform a key generating function on the at least the essential portion of the bill of materials to generate a key associated with the software configuration, and

use the generated key to determine if the software configuration exists on the storage device.

32. The computerized system of claim 31, wherein the instructions further cause the processor to:

transfer an image associated with the software configuration to one or more of the target computer system if the at least the essential portion of the bill of materials associated with each of the one or more of the target computer system produces the generated key when the key generating function is performed on the associated each at least essential portion of the bill of materials, and

generate a new image associated with the software configuration if the at least the essential portion of the bill of materials associated with the each of the one or more target computer system fails to produce the generated key when the key generating function is performed on the associated each at least essential portion of the bill of materials.

33. The computerized system of claim 31, wherein the key generating function includes a 128-bit hash algorithm.

34. The computerized system of claim 32, wherein the key generating function includes a 128-bit hash algorithm.

35. The computerized system of claim 31, wherein the essential

component list includes software-related components.

36. The computerized system of claim 32, wherein the essential component list includes software-related components.

5

37. The computerized system of claim 31, wherein the at least essential portion of the bill of materials is sorted into ascending alphanumeric sequence.

38. The computerized system of claim 32, wherein the at least essential portion of the bill of materials is sorted into ascending alphanumeric sequence.

10

39. A computerized system for identifying a software configuration for image delivery, the computerized system comprising:

a processor,

15

a computer readable medium capable of being read by the processor, and

a plurality of computer instructions on the computer readable medium, the plurality of computer instructions executable by the processor, the plurality of computer instructions for causing the processor to:

process a component list associated with a system to be built, the component

20

list containing a essential portion and a non-essential portion,

perform a key generating function on the essential portion of the component

list to generate a key associated with the software configuration, and

use the generated key to determine if the software configuration exists on the storage device.

25

40. The computerized system of claim 39, wherein the instructions further cause the processor to:

transfer an image associated with the software configuration to one or more

target devices if the essential component list associated with each of the



one or more target devices produces the generated key when the key generating function is performed on the associated each essential component list, and

5        generate a new image associated with the software configuration if the essential component list associated with each of the one or more target devices fails to produce the generated key when the key generating function is performed on the associated each essential component list.

10        41.    The computerized system of claim 39, wherein the key generating function includes a 128-bit hash algorithm.

42.    The computerized system of claim 40, wherein the key generating function includes a 128-bit hash algorithm.

15        43.    The computerized system of claim 39, wherein the essential component list includes software-related components.

44.    The computerized system of claim 40, wherein the essential component list includes software-related components.

20